

**AMERICAN BIRD CONSERVANCY*FOREST CONSERVATION
COUNCIL*HUMANE SOCIETY OF THE UNITED
STATES*DEFENDERS OF WILDLIFE**

February 14, 2005

**Marlene H. Dortch, Commission Secretary
Federal Communications Commission, Office of the Secretary
445 12th Street, SW
Washington DC 20054**

**Re: Comments on WT Dkt. No. 03-187, Avatar Environmental, LLC, Report
Regarding Migratory Bird Collisions with Communications Towers**

Dear Federal Communications Commission:

These comments are submitted on behalf of American Bird Conservancy, Forest Conservation Council, The Humane Society of the United States, and Defenders of Wildlife in response to the Avatar Environmental, LLC, Report Regarding Migratory Bird Collisions with Communications Towers, WT Dkt. No. 03-187, hereafter cited as _Avatar Report_. We had previously submitted comments on November 11, 2003 regarding the FCC Notice of Inquiry (NOI) in WT Dkt. No. 03-187.

We attach a comprehensive analysis of the science, conclusions, and recommendations found in the Avatar Report and request that this document be made part of our comments.

This analysis, referred to herein as the "Land Protection Partners Analysis" was conducted by Land Protection Partners and authored by Travis Longcore, Ph.D., Catherine Rich, J.D., M.A., and Sidney A. Gauthreaux, Jr., Ph.D. Their Biographical information is attached to their report. Ms. Rich and Dr. Longcore are co-editors of a new book in press, *Ecological Consequences of Artificial Night Lighting*. Dr. Gauthreaux has been a pioneer in the use of weather radar to detect and estimate migratory bird numbers and movement. He has also conducted critical research at communication towers on lighting effects on birds. His study is cited and discussed in the attached Analysis as Gauthreaux and Belser, *Effects of artificial night lighting on migrating birds in Ecological Consequences of Artificial Night Lighting*, (2005).

As clearly enunciated in the attached Land Protection Partners Analysis, we believe the Avatar Report does not adequately address the significance of communication tower mortality to avian species and fails to document research and acknowledge that there are known mitigation measures that could substantially reduce avian mortality at communication towers and that could eliminate mass mortality events at such towers.

Other than recommending more research, the Avatar Report is devoid of any recommendations to mitigate avian mortality at communication towers. The Avatar Report fails to acknowledge or recommend any adaptive management measures to prevent

or minimize avian mortality at communication towers despite solid evidence of the efficacy of such measures as minimizing height, trying to keep towers below 200' to avoid lighting, using white or red strobe lights when towers must be lit, keeping towers unguyed where possible, and avoiding migration corridors on ridgelines where migrating birds may fly at or below the height of towers.

These are the same measures recommended by the U.S. Fish and Wildlife Service in its Guidance Document on the Siting, Construction, Operation and Decommissioning of Communications Towers issued on September 14, 2000 (FWS Tower Siting Guidelines). A copy of that document was provided the FCC in September 2000 and has been repeatedly discussed with the FCC since September 2000. On November 20, 2000, the U.S. FWS Director wrote to the FCC Chairman, attaching the Guidelines and urging the Chairman to “....make the interim guidelines available to all applicants requesting Federal communication licenses, in order to distribute the information more widely among the....industries.” The Director noted that the Guidelines represent “the best measures available for avoiding fatal bird collisions” and “While there is a considerable body of research available on bird strikes at towers and the measures which can be taken to avoid them, this knowledge is not widely known outside the academic community....We believe that widespread use of these guidelines will significantly reduce the loss of migratory birds at towers.”

The attached Land Protection Partners Analysis documents that there is a considerable body of research available on bird strikes at towers and the measures which can be taken to avoid them and that the U.S. FWS Tower Siting Guidelines represent the best measures available for avoiding fatal bird collisions. The Land Protection Partners Analysis corroborates with scientific documentation, including new studies, the efficacy of the avoidance and mitigation measures recommended in the U.S. FWS Guidelines. The Land Protection Partners Analysis also clearly documents that avian mortality at communication towers is significant.

We again would urge the FCC to end the years of delay in taking any actions to prevent avian mortality at communication towers under their jurisdiction by adopting the measures recommended below and by the U.S. FWS Guidelines, as supported in the attached Land Protection Partners Analysis

I. THE NOI AND AVATAR REPORT ARE PART OF A FCC PATTERN OF UNREASONABLY DELAYING ACTIONS TO PREVENT AVIAN MORTALITY.

On August 20, 2003, the FCC released a Notice of Inquiry, *In the Matter of Effects of Communications Towers on Migratory Birds*, to develop a record on how, and to what extent, migratory birds may be affected by communication towers and measures that could be taken to prevent or mitigate these impacts. We commented on the NOI on November 11, 2003 that:

“The FCC NOI appears to be another FCC delaying tactic designed to prevent the FCC from changing the status quo under which millions of migratory birds are illegally killed at communication towers while the

FCC permits the construction of thousands of new towers and the operation and re-registration of tens of thousands of existing towers. There are no time limits for the completion of the NOI and no proposed actions to benefit birds and prevent the annual killing of millions of birds. The NOI could proceed indefinitely, thus providing another convenient excuse to continue the FCC's years of delays in addressing the killing of millions of migratory birds at towers. The NOI process falls completely short of required NEPA compliance and, indeed, appears to be yet another delaying tactic that prevents the FCC from making necessary changes to protect migratory birds and change the status quo. The FCC should comply with NEPA by issuing a programmatic environmental impact statement concerning the impact of communication towers registered by the FCC on migratory birds and the causes, and propose solutions, and also by reforming the agency's categorical exclusion policy so that citizens can participate in the NEPA process." See ABC et al. Comments of November 11, 2003 regarding WT Dkt. No. 03-187.

It appears that we were right, as the delay in acting on the filings on the NOI, and delay in acting on the Avatar Report on the NOI appear to be further FCC delaying tactics designed to maintain the status quo. What is remarkable is that it is now one year and nine months since the FCC Chairman first publicized the FCC's intent to deal with the issue of bird kills at communication towers through a NOI (see Chairman's May 2003 press release) and to possibly hire a full time biologist on staff to work on such issues. It is now one year and six months since the FCC initiated the Notice of Inquiry on August 20, 2003, and one year and two months since the comment period for the migratory bird NOI expired on December 6, 2003. And, the FCC still has done nothing with the Notice of Inquiry other than to have a consultant summarize the comments and make recommendations.

The NOI comment and reply period ended on December 6, 2003 and the FCC analysis of comments was not completed and published by its contractor Avatar until December 14, 2004, over a year after the comment period ended. Avatar was not retained to do the Analysis until May 2004, and after the Avatar report was completed, the FCC delayed its release for over two months. During the last six years, despite the intercessions of the U.S. Fish and Wildlife Service urging an EIS to comply with NEPA, and despite the urgings, repeated meetings, letters, petitions, appeals, and law suits by the conservation community, the FCC still has failed to change any of its procedures to better protect migratory birds as required by Federal laws. The FCC has successfully used bureaucratic delays to maintain the status quo while millions of migratory birds are being killed at towers under their jurisdiction.

Based on the comments herein, and the unequivocal documentation and findings of the attached Land Protection Partners Analysis, it is time for the FCC to act to prevent or at least minimize avian mortality at communication towers.

II. THE FCC HAS RECEIVED EXTENSIVE INFORMATION INDICATING THAT COMMUNICATION TOWERS ARE A SIGNIFICANT AND CONTINUING SOURCE OF MORTALITY TO MIGRATORY BIRDS.

A. OVERALL MORTALITY.

The Avatar Report documents and finds that "Overall, there is general agreement that

there is sufficient documented evidence of avian mortality by communication towers and that the construction and operation of tall structures will likely result in the risk of bird collisions and possible mortalities....That birds are colliding with towers has been well documented.” Avatar Report, pages 3-19 and 3-20.

The Report further notes several sources estimating that mortality is between 2 million to 5 million birds per year, but ignores a letter to the FCC Chairman from the Director of the U.S. FWS dated November 2, 1999 where the Director references data that indicate the annual killing of migratory birds from communication towers may be 4 million to an order of magnitude above this—40 million. The Director points out the deficiencies in current FCC regulations that we have noted repeatedly before and notes that “....substantial losses of migratory birds are not being accounted for in FCC’s permit and NEPA decision-making process....The cumulative impacts of the proliferation of communication towers on migratory birds, added to the combined cumulative impacts of all other mortality factors, could significantly affect populations of many species.” The Avatar Report does conclude that “Although biologically significant tower kills have not been demonstrated in the literature, the potential does exist, especially for threatened and endangered species._ Avatar Report, page 5-2.

Over the years since 1998, the FCC Commissioners, the Commissioners’ personal staff, and the staff of various FCC divisions have received extensive documentation of the past and current killing of migratory birds at communication towers. This data has been provided to the FCC by the U.S. FWS, the undersigned groups, scientists, conservationists, and individual tower objectors, appellants, and declarants in tower appeal cases and a court suit (In Re: Forest Conservation Council, Inc., et al., vs. FCC in the U.S. Court of Appeals for the D.C. Circuit (2003)).

Accounts of bird kills at tall, lighted structures have appeared in North American scientific literature since at least 1880. The Avatar Report further details the extensive literature documenting avian mortality, sometimes numbering in the thousands in one night.

We also submitted detailed published accounts of avian mortality at towers in our comments of November 11, 2003 and will not reiterate that documentation here. The attached Land Protection Partners Analysis finds that:

“Assessment of the cumulative significance of tower-caused avian mortality is confounded by the absence of monitoring at a large number of towers. Because the FCC does not require monitoring at towers that it registers or otherwise approves, and because tower operators do not conduct such monitoring, bird kills reported in the literature represent only a minimum measurement of the total mortality. The majority of tower sites are never checked for mortality and even those that are checked are done so only on a sporadic basis. In addition, the reported numbers are based on actual carcasses found and there is no extrapolation for predator/scavenger removal or search efficiency. This means, as the Avatar Report notes, that the numbers of birds killed are higher than reported. Two of the longer-term studies with periodic searches confirm that numbers of birds killed can be significant at one tower: a 38-year study of a single 1,000-foot television tower in west central Wisconsin documented 121,560 birds killed representing 123 species, and a 29-year study at a Florida television tower documented the killing of more than 44,000 birds of 186 species. Neither of these studies adjusted carcass counts upward to account for search efficiency and

predator/scavenger removal. We do know that communications towers kill millions of birds annually, and that a very high percentage of these are neotropical migratory birds that migrate at night.” Emphasis added.

If any one flaw can be blamed for the inability to definitively document how many birds are killed at towers annually, it is the failure of the FCC to require monitoring for avian mortality at communication towers, a flaw that still exists. Such monitoring is required for a majority of wind turbine projects in the U.S. We agree with the Avatar Report that standardized monitoring needs to be established. The model cited from the wind energy industry is a good one. Since the FCC does not require bird kill monitoring and since the telecommunication industry and tower owners/operators refuse to conduct or fund monitoring or research, how will such standardized protocols be implemented and where? The FCC should immediately require scientifically based monitoring for avian mortality at communication towers and its open reporting to cure this defect.

Long-term studies of bird mortality at communications towers in North America all indicate that sizable kills occur on a regular basis, with occurrences depending on specific weather conditions. Hundreds of short-term studies have been conducted consisting of data gathered from just a single night or over several years. These short-term studies also document that kills occur regularly over a wide area of North America. The FCC has been repeatedly provided either hard copies of these studies or references to these studies and reports. The FCC has also been provided and has access to comprehensive bibliographies on bird kills at towers. These bibliographies, including detailed annotated ones provided by the U.S. FWS, show conclusively that communication towers have long caused significant avian mortality. We will not reiterate those herein, but again note our detailed list of such documentation in our comment letter on the NOI dated November 13, 2003 and also refer to the documentation submitted in the attached Land Protection Partners Analysis.

B. AVIAN MORTALITY IS SIGNIFICANT.

The Avatar report discusses avian mortality at towers in terms of biological significance. As noted in the attached Land Protection Partners Analysis:

“It is apparent from the comments submitted in response to the Notice of Inquiry, especially those by the communications industry, that the standard for significance at issue is not a scientific standard, but rather a statutory standard under the National Environmental Policy Act (NEPA). For purposes of this report, we assume that ‘biologically significant’ means a significant impact to biological resources under NEPA.

The Avatar Report does not outline the standards used by the FCC to determine significance of impacts to biological resources under NEPA. The report does assert, however, that analysis of biological significance would be possible for well-studied bird populations such as Kirtland’s Warbler and Red-cockaded Woodpecker, but then does not conduct any analysis or provide any insight into whether tower kill would be biologically significant for these species.

The communications industry likewise fails to present a coherent analysis of biological significance. The industry relies on an argument that bird kills at communications towers are so small relative to other forms of human-caused bird mortality that they are insignificant by definition. Because this argument is repeated (without critical analysis) in the Avatar Report, it deserves special consideration.”

The authors of the Land Protection Partners Analysis conclude that “Expressing tower kill mortality as a percentage of total human-induced mortality therefore does not make sense.”

We believe that the available data clearly indicate that mortality at communication towers is biologically significant for a number of avian species and that, in any event, the mortality clearly has a significant impact for bird species under NEPA.

In the Land Protection Partners Analysis, the authors conclude after a detailed analysis of species-specific mortality, that the results show that for the ten avian species killed most frequently at towers, total annual mortality is estimated to be from 490,000 to 4.9 million for each species. This analysis assumes that the range of mortality per year experienced by bird populations from communications towers is between 4 and 40 million individuals per year. If 40 million birds per year are killed, the top ten most commonly killed birds would suffer losses of ~1 million-4 million individuals per year, including two U.S. FWS Birds of Conservation Concern, Bay-breasted Warbler and Blackpoll Warbler. The killing of 1million to 2 million or even 100,000_200,000 individuals of a bird species of regulatory concern annually would be considered a significant impact in environmental impact analysis. The extrapolated mortality rate of ~40_400 Red-cockaded Woodpeckers annually is a significant impact for this endangered species.

Table 1 in the attached Land Protection Partners Analysis demonstrates that even at the lowest end of estimated mortality, 17 other birds of U.S. FWS Conservation Concern each have over 10,000 fatalities at communication towers annually, including 68,140 Northern Waterthrushes, 68,140 Northern Parulas, 56,797 Connecticut Warblers, and 47,598 Cape May Warblers. These numbers could be as high as 681,396 Northern Waterthrushes, 576,200 Northern Parulas, 567,975 Connecticut Warblers, and 475,982 Cape May Warblers. The mortality for Birds of Conservation Concern is clearly biologically significant and fully meets NEPA standards for a significant effect on the environment.

The U.S. Fish and Wildlife Service’s Birds of Management Concern List is a statutorily required listing of avian species that may become candidates for listing under the Endangered Species Act without additional conservation action, and for which special attention is warranted to prevent declines. Congress dictated such a list be prepared at least every five years as an early warning system to try and prevent birds from becoming listed under the ESA. The Fish and Wildlife Conservation Act, Title 16 U.S.C. Section 2912, requires the Secretary of Interior to "(3) identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973; and (4) identify conservation actions to assure that species, subspecies, and populations of migratory nongame birds identified under paragraph (3) do not reach the point at which the measures provided pursuant to the Endangered Species Act of 1973."

Species of birds killed at towers are not evenly and randomly distributed. Studies document that most birds killed at towers--perhaps 90% to 94%--are neotropical, migratory birds, with nearly all of these species night migrants. The Avatar Report does not adequately discuss this concentration of mortality as has been well documented, e.g. *Characteristics of Avian Mortality at a North Florida Television Tower: A 29-year Study*, Robert L. Crawford and R. Todd Engstrom, *Journal of Field Ornithology*: Vol. 72, No. 3, pp.380-388, (2001); *A Study of Bird Mortality at a West Central Wisconsin TV Tower from 1957-1995*, by Dr. Charles Kemper, *The Passenger Pigeon*, Vol. 58, No. 3, Pp. 219-235. 1996; *Communication Towers: A Deadly Hazard to Birds*, by Shire, G., et al. American Bird Conservancy, June 2000.

The studies and data clearly indicate the significance of avian mortality from communication towers to individual avian species.

At a 1999 Avian Mortality at Communication Towers Symposium at Cornell University, two scientists at the Tall Timbers Research Station in Florida (Robert L. Crawford and R. Todd Engstrom) stated: "We feel that R. D. Weirs 1976 quote still sums up the state of knowledge about these events: Nocturnal bird kills are virtually certain wherever an obstacle extends into the air space where birds are flying in migration. The time of year, siting, height, lighting, and cross sectional area of the obstacle and weather conditions will determine the magnitude of the kill....Large kills almost invariably occur when migrant birds encounter inclement weather along frontal boundaries.....Some have dismissed this continuing almost certainly increasing mortality as biologically insignificant. We do not agree, because this constant decimation seems inevitably to have a cumulative effect on populations already threatened by deforestation and fragmentation, nest parasitism, pollution, and other causes." Abstract from a paper by Crawford and Engstrom for the August 11, 1999 *Workshop on Avian Mortality at Communication Towers*.

The FCC has been previously provided this information.

III. FCC SHOULD ADOPT ADAPTIVE MANAGEMENT PRACTICES TO PREVENT AVIAN MORTALITY.

The Meyers Report (2000) cited in Avatar at page 4-1 discusses the necessity for adaptive management. There is sufficient research, studies, and other documentation as to the cause of avian mortality at communication towers and for mitigation measures to prevent or at least minimize such mortality. This is well-documented in the literature, in newly published studies and in studies *in press*. The attached Land Protection Partners Analysis thoroughly discusses this documentation. Our comment letter of November 13, 2003 and this letter also provide documentation.

We strongly reject, as do the authors of the attached Land Protection Partners Analysis, the Avatar Report conclusion that "No new defensible evidence has been provided on the role of specific factors on avian mortality, so absent the raw data, it is not possible to draw any defensible conclusions from the survey results." The Avatar report adopts the industry line that "Not enough is known to recommend different types of mitigation for mortality." This is absolutely incorrect as the Land Protection Partners Analysis clearly documents. Height, lighting, guy wires, and location of towers on migratory ridges are all

measures that have been linked to increased avian mortality and should be addressed by the FCC in adopting mitigation measures as per the U.S. FWS Tower Siting Guidelines. Please see Items IV. to VII. below.

IV. AVATAR REPORT FAILS TO ACKNOWLEDGE FAA RECOMMENDATIONS FOR PREFERRED LIGHTING.

The Avatar Report fails to address the current position of the Federal Aviation Administration on obstruction lighting to prevent avian mortality at communication towers and other structures. In an April 6, 2004 Memorandum from the FAA Program Director for Air Traffic Airspace Management to Regional Air Traffic Division Managers, the FAA states that: “The American Bird Conservancy has requested that the Federal Aviation Administration (FAA) standardize existing requirements for lighting systems on tall structures to minimize mortality to migratory birds. Specifically, the American Bird Conservancy, based on guidelines developed by the U.S. Fish and Wildlife Service, requests that the FAA reduce the issuance of aeronautical determinations recommending red lights at night and that white strobe lights be recommended for nighttime conspicuity....Therefore, in consideration of the agreement between the FAA and the American Bird Conservancy, please advise your staff that medium intensity white strobe lights for nighttime conspicuity is to be considered the preferred system over red obstruction lighting systems to the maximum extent possible without compromising safety.

Please refer to Chapter 6, Medium Intensity Flashing White Obstruction Light Systems, AC 70/7460-1K for specific guidance.” See the attached Memorandum from Sabra W. Kaulia, FAA Program Director for Air Traffic Airspace Management to Regional Air Traffic Division Managers dated April 6, 2004.

Thus, the current FAA position is that medium intensity white strobe lights for nighttime conspicuity are to be considered the preferred system over red obstruction lighting because of concerns over avian mortality. The U.S. FWS Guidelines and an agreement with American Bird Conservancy are cited as underlying this preference. The use of white or red strobe lighting on towers, with pulse rates of as low as 20 pulses per minute, has been authorized for nighttime conspicuity for decades under the current FAA Advisory Circular (AC) 70/7460-1, Obstruction Marking and Lighting. Such lighting does not and has not diminished aviation safety and in no way would impede telecommunications. The FCC has been made aware of the FAA April 6, 2004 Memo recommending the use of white strobes but has not made any changes to its current tower registration and licensing procedures to adopt this recommended lighting to prevent avian mortality. And, the Avatar report fails to mention the FAA Memorandum.

The current FAA Advisory Circular (AC) 70/7460-1, Red Obstruction Lighting Guide for FAA Style A Lighting still allows the alternating L-810 red solid state lights with L 864 red flashing beacons. These red solid state and flashing lights have been shown to attract more birds at night and cause more avian mortality, while not necessarily providing any added aviation safety. Please see studies mentioned in our November 13, 2003 comment letter and

those cited in the attached Land Protection Partners Analysis. Since the FAA Advisory Circular (AC) 70/7460-1, Obstruction Marking and Lighting, is the source of all tower lighting, it would seem logical that the FCC adopt the FAA preference for strobe lights for all towers under its programs in order to minimize avian mortality while still advancing telecommunications.

V. DOCUMENTATION OF SIGNIFICANCE OF TOWER LIGHTING IN AVIAN MORTALITY DICTATES USE OF STROBE LIGHTS.

As noted by the authors in the Land Protection Partners Analysis “The lighting scheme of communications towers is probably the most important factor contributing to bird kills at towers that can be controlled by humans....The Avatar Report does not adequately convey the certainty of this information or the central importance of lights in causing birds to collide with towers....Observation of bird behavior at towers lighted with solid red (L-810) and flashing red (incandescent L-864) lights confirms that light is the stimulus that keeps birds circling the tower and thereby substantially increasing risk of mortality....The combination of solid red and flashing red lights (L-810 with incandescent L-864) attracts and disorients birds, which accumulate around towers, collide with each other, the tower, guy wires, and the ground, die of exhaustion, or deplete their fat reserves._

The Avatar Report notes at page 3-42 that _More compelling is the growing body of evidence that birds may be attracted to tower lights, and certain colors and flash patterns may have disorienting effects, especially during inclement weather conditions where the tower illumination bounces and refracts off a myriad of water droplets suspended in the air to create an aura of light and a greater illuminated space around the tower (Avery et al. 1976). Historically, birds have appeared to be ‘attracted’ to artificial light sources from lighthouses and buildings (Ogden 1996).” But, the Report concludes, as it does with all other data leading to potential mitigation measures, that “....no clear conclusion can be drawn, based on existing literature, regarding lighting and bird attraction.”

The Land Protection Partners Analysis authors disagree. They conclude that “Observation of bird behavior at towers lighted with solid red (L-810) and flashing red lights (incandescent L-864) confirms that light is the stimulus that keeps birds circling the tower and thereby substantially increasing risk of mortality.” They go into great detail on the scientific literature and cite the *in press* Gauthreaux and Belser (2005) research and many other studies. We reference that documentation in the attached Analysis.

Lighting is also strongly implicated in avian mortality under the U.S. FWS Tower Siting Guidelines, that provide:

_2. If collocation is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level (AGL), using construction techniques which do not require guy wires (*e.g.*, use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Aviation Administration regulations permit....

5. If taller (>199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. The use of solid red or pulsating red warning lights at night should be avoided. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. Red strobe lights have not yet been studied."

The Land Protection Partners Analysis authors conclude that "Reducing the attraction of birds to towers is a critical factor in minimizing bird deaths at towers. Without attraction, birds may still encounter and be killed in collisions with towers that are sited in migratory pathways, but the sum of the available scientific evidence indicates that mortality would be greatly reduced by using only strobe lights at towers. The evidence above supports the U.S. Fish and Wildlife Service tower siting guidelines [as quoted above]." Emphasis added.

We urge the FCC to adopt provisions for new and existing towers that would encourage towers to be kept under 200', where possible, to avoid lighting and to require the use of white or red strobe lights where towers must exceed 200'.

VI. DOCUMENTATION OF SIGNIFICANCE OF GUY WIRES TO AVIAN MORTALITY AT TOWERS DICTATES FCC REQUIRING MONOPOLES, EXCEPT WHERE GUY WIRES MUST BE USED.

As noted in the attached Land Protection Partners Analysis: "Most towers from which large bird kills have been reported have had guy wires. Observational studies of birds in the vicinity of towers show that birds are much more likely to collide with the guy wires than with the tower itself. Dr. Gehring's study in Michigan provides evidence of increased mortality caused by guyed towers compared to guyless towers of the same height and lighting regime. The Gehring study includes 12 guyed and 9 guyless communications towers 380 feet 480 feet tall. During spring and fall 20-day survey periods in 2004, guyed towers killed close to ten times more birds than guyless towers. This same ratio was found even after adjusting for scavenger removal and search efficiency. Higher mortality from guyed towers would be expected because of the circling behavior exhibited by migrants under the influence of lights on towers. Furthermore, a study of bird mortality at transmission towers in Wisconsin found a high correlation between the locations of dead birds and guy wires, implicating collisions with guy wires as the cause of death. The hazard of guy wires to migrating birds has also been investigated by those working with wind power producers. Research on wind turbines, which are unguyed, and nearby guyed structures confirms the increased risk of guyed structures. For example, in one study, the average number of birds killed at a guyed meteorological tower was approximately three times higher than the nearby per turbine mortality. The turbines, of a similar height, are unguyed."

Dr. Gehring estimates that 90% of mortality at guyed towers results from collisions from guy wires, based on the location of the birds, which is consistent with the ten-fold increase in mortality.

Wally Erickson reported that _based on computer models, for a bird with a one-foot wing span, the likelihood of collision with a 105 m high communications tower having 1.25 miles of

guy wires is three times as great as the likelihood of colliding with a 65-m rotor diameter, 92 m maximum height wind turbine....empirical data from a wind energy project in Wyoming corroborated the higher per structure collision risk for a guyed structure compared to a wind turbine for songbirds. Erickson, Wally, *Bird Fatality and Risk at New Generation Wind Projects* (West, Inc.) 2004, in the Proceedings of the Wind Energy and Birds/Bats Workshop: Understanding and Resolving Bird and Bat Impacts, Washington, D.C. May 18-19, 2004. Prepared by RESOLVE, Inc., Washington, D.C., Susan Savitt Schwartz, ed. September 2004.

The computer modeled wind turbine was unguyed as are all wind turbines except for a few small, older turbines. The Wyoming wind energy project cited is at the Foote Creek Rim wind energy facility. The average number of birds killed per guyed meteorological tower was approximately 3 times higher than the per turbine mortality. The turbines are unguyed. Young, David P., et al., *Foote Creek Rim Final Bird and Bat Mortality Report: Avian and Bat Mortality Associated with the Initial Phase of the Foote Creek Rim Wind Power Project*, Carbon County, Wyoming. November 1998--June 2002. Final Report. January 10, 2003. West, Inc., (2003).

Other recent U.S. studies indicate that bird mortality at wind turbine projects varies from less than one bird/turbine/year to as high as 7.5 birds/per turbine/year. The latter fatality rate was at Buffalo Mountain, TN in 2003, where three unguyed wind turbines are in use, each with a 154' diameter, 3-blade rotor mounted on a 213' tall tubular steel tower. A guyed unlit 197' meteorological (met) tower constructed for the Buffalo Mountain wind plant had a mortality rate of 8.1 birds/year, greater than the average fatality rate for the three wind turbines. Mortality was monitored from October 2000, when construction was completed, through September 2003. Charles P. Nicholson, PhD., Tennessee Valley Authority, 400 West Summit Hill Drive, WT 8C, Knoxville, TN 37902-1499, personal communication, March 26, 2004. cpnicholson@tva.gov.

Guyed meteorological and communication towers at wind turbine sites appear to have more bird fatalities per tower than fatalities per turbine, even though the turbine tips fully extended are at higher above ground elevations and the blades are spinning. This appears to be related to wind turbines being unguyed. This further corroborates the significant influence of guy wires on avian mortality.

According to the authors of the Land Protection Partners Analysis, "This evidence, and the lack of records of mass bird kills at guyless towers in the reviewed literature, is sufficient for reasonable scientific minds to conclude that guy wires greatly increase mortality at towers. The evidence cited above documents the scientific merit of the U.S. Fish and Wildlife Service tower siting guidelines on the use of guy wires:

2. If collocation is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level (AGL), using construction techniques which do not require guy wires (e.g., use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Aviation Administration regulations permit.

7. Towers and appendant facilities should be sited, designed and constructed so as to avoid or minimize habitat loss within and adjacent to the tower footprint. However, a larger tower footprint is preferable to the use of guy wires in

The FCC could significantly reduce avian mortality at communications towers by allowing construction only of guyless towers unless applicants document that such construction is not feasible.”

We concur and would urge the FCC to adopt requirements for communication towers to avoid use of guy wires unless applicants document that construction is not feasible without the use of guy wires.

VII. TOWER HEIGHT SHOULD BE KEPT TO A MINIMUM, WHERE POSSIBLE.

The Avatar Report reaches the conclusion that, “All other things being equal, taller towers with lights tend to represent more of a hazard to birds than shorter, unlit towers.” In the attached Land Protection Partners Analysis, a model indicating avian mortality related to tower height is constructed based on research studies. The Analysis concludes that “Following this model, it would drastically reduce bird mortality to keep as many towers as possible below 199 feet, which both avoids FAA-required lighting and, according to our analysis, would avoid large yearly kills 90-95% of the time.”

In the J. Gehring Michigan study, avian mortality at 380'-480' towers was significantly less than mortality at taller (1,000 feet) towers. On average, the taller towers killed over four times more birds during 20-day Spring and Fall seasons than did shorter towers.

The Land Protection Partners Analysis cites other studies and concludes:

“The logistic regression analysis of annual mortality and the Gehring study fully substantiate the U.S. Fish and Wildlife Service tower siting guidelines to better protect birds:

1. Any company/applicant/licensee proposing to construct a new communications tower should be strongly encouraged to collocate the communications equipment on an existing communication tower or other structure (*e.g.*, billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may collocate on an existing tower.
2. If collocation is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level (AGL), using construction techniques which do not require guy wires (*e.g.*, use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Aviation Administration regulations permit.

The existing data would support the FCC adopting these recommendations as standards to better protect birds. Such standards for tower construction do not mean that towers exceeding 199 feet or any other height should not be constructed; only that the FCC would strongly encourage co-location and the construction of shorter towers to accomplish telecommunication goals while minimizing avian impacts.”

We concur.

Also note the Land Protection Partners Analysis of towers on migratory bird ridgelines. They site studies that provide:

“....convincing peer-reviewed evidence that the placement of communications towers along ridgelines is likely to result in increased bird mortality than placement elsewhere. It provides a rational explanation for why some short towers cause high bird mortality (*e.g.*, a kill at a 100-foot unlighted tower on a ridgeline). Birds will be killed at a

tower whenever large numbers are flying near it at the same elevation as the tower. This can occur because the tower is tall or because it is placed topographically where birds are concentrated close to the ground. At ridgeline locations, inclement weather is not required for concentrations of birds to be found at low elevation. Radar studies can be conducted prior to siting a tower in an area that might concentrate night migrants so that the tower can be located to avoid such sites.”

Where possible, towers particularly those that are lit and/or guyed should not be allowed on such ridgelines.

VIII. RECOMMENDATIONS FOR RESEARCH SHOULD SPECIFY FUNDING, THE FEDERAL AGENCY RESPONSIBLE FOR SUCH RESEARCH, AND TIME LINES FOR COMPLETION.

The Avatar Report relies exclusively on calls for more research, while avoiding recommendations for the adoption of any measure to prevent or reduce avian mortality at communication towers. Funding for the research, which federal agency would be responsible, and timelines and protocols for the research are not mentioned. Nor do the industry respondents suggest such funding or protocols.

Reliance on participation in the Communication Tower Working Group is of little merit as the Research Committee has not met since April 2000 and the CTWG since February 11, 2004. One of the reasons the CTWG Research Committee has not met for five is because of the failure of the telecommunication and tower industries, the FCC, the FAA, and other federal agencies to fund existing peer-reviewed research proposals produced by the Research Committee. These proposals have gone unfunded for nearly four years despite a 50-50 NFWF match pledge made to industry. The FCC and industry have refused to conduct or fund research or to monitor towers, and now the industry argues that no action to prevent avian mortality should be taken because more research is needed first.

The Avatar Report does mention the successful industry collaboration under EPRI for APLIC standards (birds interactions w/power lines and poles) and the NWCC Avian Subcommittee for wind turbines and birds/bats. But there is no recommendation for such a collaboration to resolve bird kills at communication towers. The industry and the FCC have obviously not been motivated to act to resolve the problem so long as they can maintain the status quo.

IX. FCC WRONGLY DIRECTED AVATAR TO EXCLUDE DISCUSSIONS ON COMPLIANCE BY FCC WITH LAWS AND REGULATIONS.

The Avatar Report clearly states that they were prohibited from addressing regulatory, legal, policy, or administrative requirements of the FCC in regards to avian collisions with towers. This prohibition creates a seriously flawed Notice of Inquiry process and document as current FCC regulatory review requirements for the location, construction, operation and monitoring of towers for avian mortality need to be discussed and improvements recommended to prevent or at least minimize avian mortality. The Avatar Report basically is content with simply recommending more research, participation in the dormant CTWG, and further delay in any actions to prevent bird mortality at towers.

The Avatar Report ignores the November 2, 1999 letter from the Director of the U.S. FWS sent to the FCC Chairman urging the completion of a programmatic EIS under NEPA to ascertain the magnitude, causes, and avoidance measures for avian mortality at communication towers. She points out the deficiencies in current FCC regulations that we have noted repeatedly before and notes that “....substantial losses of migratory birds are not being accounted for in FCC’s permit and NEPA decision-making process.”

The FCC declined to conduct an EIS and has done virtually nothing to advance its compliance with NEPA over the last six years. Compliance with the federal Migratory Bird Treaty Act and Endangered Species Act were also raised in our comments on the NOI and in many other comments submitted. But these comments have been ignored.

So five and one-half years after being told that the FCC needs to do the research and complete an EIS on the extent, causes, and remedies for avian mortality at communication towers under its jurisdiction, a NOI is issued, Avatar is hired by the FCC and publishes a Report based on the filings, and Avatar recommends only further study/research. We are right back to where we were in November 1999 and still without any changes in the tower siting and approval process, still no actions to prevent bird mortality from the FCC, and with recommendations from Avatar that somebody, somehow should fund and conduct this research that the FCC was required to do as part of an EIS over 5 years ago.

X. FCC SHOULD IMMEDIATELY ACT TO COMPLY WITH NEPA, MBTA, AND ESA.

The FCC is currently and has been for years in violation of the National Environmental Policy Act (NEPA), Migratory Bird Treaty Act (MBTA), and the Endangered Species Act (ESA) under its current system of authorizing, licensing, approving, and registering communication towers. The authors of the Avatar Report were directed by the FCC to ignore these regulatory, legal, policy, and administrative requirements. Thus, the Avatar Report makes no recommendations that would correct these violations of Federal environmental laws. The FCC has been aware of these serious deficiencies and illegal operations for over 5 years as the U.S. Fish and Wildlife Service (FWS), the undersigned groups, many other groups, and appellants in tower cases have repeatedly documented bird kills caused by towers.

The FCC has received extensive information indicating that communication towers are a significant and continuing source of mortality to migratory birds and on mitigation measures that could be employed to prevent/minimize such mortality. Despite this documentation, the FCC has refused to alter its tower registration, approval, licensing, and regulatory programs to better protect migratory birds and instead is further delaying any actions. We urge that the mitigation measures recommended in this letter and supported by the attached Land Protection Partners Analysis and that were recommended by the U.S. FWS in its Tower Guidelines of September 2000, be immediately adopted by the FCC.

A. COMPLIANCE WITH NEPA REQUIRED.

We would emphasize that the Avatar Report and the NOI does not relieve the FCC from full

compliance with NEPA, 42 U.S.C. __ 4321 *et seq*, and its implementing regulations. Section 102(2)(C) of NEPA requires federal agencies to prepare an EIS for all major federal actions significantly affecting the quality of the human environment. 16 U.S.C. _ 4332(2)(C). In determining whether a federal action significantly affects the quality of the human environment, all direct, indirect, and cumulative effects of an action must be assessed. CEQ regulations require agencies to consider three types of actions when preparing an EIS: 1) “connected actions,” which means they are closely related and therefore should be discussed in the same impact statement; 2) “cumulative actions” which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement; and 3) “similar actions”, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis for evaluating their environmental consequences together, such as common timing or geography.” 40 C.F.R. 1508.25(a).

Because the FCC's communication tower registrations, approval, licensing, and regulatory programs are connected, cumulative, and similar in nature, the ongoing registration, approval, licensing, and regulatory programs of towers is an agency program for purposes of NEPA analysis, and it requires a programmatic environmental impact statement. This letter and the attached Land Protection Partners Analysis clearly document that avian mortality is significantly affecting the quality of the human environment under NEPA.

Indeed, on November 2, 1999, the Director of the U.S. FWS sent a letter to the FCC Chairman urging the completion of a programmatic EIS under NEPA to ascertain the magnitude, causes, and avoidance measures for avian mortality at communication towers. The FCC declined to conduct an EIS and has done virtually nothing new to comply with NEPA over the last five years. The FCC currently violates NEPA regularly regarding the permitting, approval, registration, operation, and licensing of communication towers. The FCC should complete a NEPA programmatic EIS to ascertain the impacts of towers on birds, the cause of those impacts, and the solutions to prevent such mortality. Under the required NEPA process, the FCC would conduct a scoping for the EIS with full public input, then it would write a draft EIS and allow full public input through comments on the draft with proposed alternatives to resolve the bird kill problem. Then a final EIS would be completed with appropriate changes made in FCC regulations and registration of towers to prevent bird mortality. Interim measures to prevent/minimize avian mortality at communication towers should be adopted now.

The FCC NOI and the Avatar Report deliberately omit any reference to the November 2, 1999 letter from the Director of the U.S. FWS to the FCC Chairman where the Director insists that the FCC should prepare a programmatic EIS under NEPA.

In the FCC NOI at page 14, the FCC notes that it is not expert in migratory birds but the FWS is the lead Federal agency for managing and conserving migratory birds. The FCC further acknowledges that the FWS undertakes a number of bird surveys with the Regional FWS offices. The Director of the FWS, the Federal agency with this expertise in birds cited by the

FCC, clearly states that the FCC should prepare a programmatic EIS under NEPA to delineate the impacts on birds and to arrive at mitigation measures. Besides the FWS, we have repeatedly urged the FCC to begin preparation of a programmatic EIS and implement required avoidance measures to prevent the deaths of millions of migratory birds. The FCC has and continues to stonewall on this issue, having made no changes to its tower program despite the urging of the Director of the FWS, the Federal agency with expertise in birds, and many others.

Almost all towers registered by the FCC are categorically excluded from environmental review by the FCC's NEPA rules. 47 C.F.R. _ 1.1306. The Council on Environmental Quality's (CEQ) NEPA regulations allow federal agencies to promulgate rules exempting some actions from NEPA analysis. 40 C.F.R. _ 1500.4(p). But the FCC has severely abused its discretion by exempting almost all tower registrations. The CEQ regulations allow agencies to establish categorical exclusions only for "actions which do not individually or cumulatively have a significant effect on the human environment." As this letter, the attached Land Protection Partners Analysis, the FWS data, and repeated submissions from the undersigned, scientists, and others clearly demonstrate, FCC tower registration decisions have significant effects on the human environment both individually and cumulatively by killing migratory birds, including endangered species and species of management concern listed by the FWS.

The FCC wrongfully delegates the responsibility to determine whether environmental analysis is required by NEPA to the registration applicant. 47 C.F.R. _ 1.1308. In practice, the agency gives applicants virtually unlimited discretion to determine whether environmental analysis will be undertaken, and if it will, how it will be done. The FCC merely asks the applicant to submit a form containing a checklist of potential environmental impacts. In almost every case, the applicant claims that there will be no environmental impacts. The checklist does not mention tower impacts on migratory birds. Then, in almost every case, the FCC simply rubber-stamps the applicant's form in a one line conclusory review, and the tower is categorically excluded from NEPA review. The turn-around time is normally one or two days from the FCC's receipt of the application, giving citizens no opportunity for comment. This process is entirely foreign to the spirit and purpose of NEPA.

The FCC NOI and the FCC retention of Avatar to complete a report on the NOI filings appear to be another FCC delaying tactic designed to prevent the FCC from changing the status quo under which millions of migratory birds are illegally killed at communication towers while the FCC permits the construction of thousands of new towers and the operation and re-registration of tens of thousands of existing towers. The NOI process has dragged on for over a year and one-half and falls completely short of required NEPA compliance and, indeed, appears to be yet another delaying tactic that prevents the FCC from making necessary changes to protect migratory birds and change the status quo. The FCC should comply with NEPA by issuing a programmatic environmental impact statement concerning the impact of communication towers registered by the FCC on migratory birds and the causes, and propose solutions, and also by reforming the agency's categorical exclusion policy so that citizens can

participate in the NEPA process.

Until the FCC completes a programmatic environmental impact statement on its communication tower registration program, the agency should refrain from issuing new authorizations for towers that may adversely affect migratory birds. As clearly set forth by CEQ regulations implementing NEPA, “until an agency issues a record of decision as provided in 40 C.F.R. _ 1505.2, no action concerning the proposal shall be taken that would: (1) have an adverse environmental impact; or (2) limit the choice of reasonable alternatives.” Additional authorizations of towers harmful to migratory birds will only add to the direct, indirect, and cumulative environmental harm such towers already create. Additional authorizations will also preclude the agency from adopting reasonable alternatives for mitigating such harm, such as reduced tower size, selection of lower-impact tower locations, changes in lighting, elimination of guy wires and other such measures recommended in the U.S. Fish and Wildlife Service Guidelines, our comments and those of the Land Protection Partners Analysis, and by others.

B. COMPLIANCE WITH MBTA REQUIRED.

The Migratory Bird Treaty Act (MBTA), 16 U.S.C. Sec. 701 et seq, imposes an absolute prohibition on all taking of migratory birds, nests, and eggs, unless authorized by permit issued under regulations promulgated by the Secretary of the Department of Interior. 16 U.S.C. _ 703. It is a strict liability statute which means even unintentional killing is prohibited. This prohibition applies to federal agencies like the FCC. To date, the FCC has failed to apply for a permit. The FCC has a statutory duty to take action to prevent the illegal take of migratory birds. This can be achieved by requiring communication towers to be appropriately sited, constructed, and operated through the tower registration process. Thus, the FCC violates the MBTA and the Administrative Procedure Act in authorizing the construction of towers where migratory birds will be killed at FCC authorized towers. The FCC is under a statutory duty to prevent such illegal take. The case of U.S. v. Moon Lake Electric Association, 45 FSupp 2d 1070 (1999), decided in the U.S. District Court for Colorado, and the cases cited therein clearly demonstrate the culpability of the FCC in allowing the killing of migratory birds at towers. In Moon Lake, the defendant electric co-operative was charged under the MBTA for taking birds through electrocution on its power lines and poles. Despite the defendants motion to dismiss based on arguments that the MBTA was a hunting statute and applied to willful takings only, the Court disagreed and ordered the case to proceed to trial. Moon Lake subsequently pled guilty and was fined \$100,000. Numerous other courts have held that a government agency that issues licenses or permits to a private commercial actor, whose operations in turn injured or killed listed species, is itself liable for a take. See, e.g., Strahan v. Coxe, 127 F.3d 155, 163 (1st Cir. 1997).

This same reasoning can be applied to FCC decisions to license or register communications towers that kill species listed under the MBTA. The Court of Appeals for the District of Columbia Circuit made clear that the MBTA prohibition against take of migratory birds not only applies to private individuals and corporations but also “prohibits federal agencies from

killing or taking migratory birds without a permit from the Interior department.” Humane Society of the United States v. Glickman, 217 F.3d 882 (D.C. Cir. 2000). Hence, it is unlawful for the FCC to permit or register the construction of a communication tower if that tower causes the taking of a migratory bird. Such unlawfulness should cease immediately, not after years of delay, and not pending completion of a NOI. The FCC is under a statutory legal duty to change its tower procedures to prevent avian mortality.

C. COMPLIANCE WITH ESA REQUIRED.

Prior to any FCC approval of a proposed communication tower or the re-licensing of an existing tower, the FCC must consult with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act of 1973, 16 U.S.C. __ 1531 et seq, regarding the adverse impacts of its tower registration decisions on such species. Section 7 of the ESA requires agencies to consult with the U.S. FWS when proposed actions may jeopardize threatened or endangered species. Pursuant to the ESA and the Commission's own environmental regulations, formal consultation should be initiated with the U.S. FWS to assess the effects of its tower approvals individually and cumulatively to affect federally listed threatened or endangered species, including such migratory bird species as Red-cockaded Woodpeckers that have been killed at communication towers and, also, for such species that may be affected such as the endangered Kirtland's Warbler, reportedly killed at a TV tower in South Carolina.

In accordance with Section 11(g)(2) of the ESA, 16 U.S.C. Sec. 1540(g)(2), several of the undersigned gave notice of the violations of the ESA to the Secretary of the Department of Interior and the FCC by certified return mail receipt requested on April 12, 2001. On April 9, 2004, ABC and the Forest Conservation Council filed a Notice of Intent to Sue under the ESA with the FCC for violations of Section 7 of the Endangered Species Act in connection with the registration and continued operation of antenna structures on the Hawaiian Islands. We submitted documentation that communication towers may be affecting the ESA-listed Newell's (Townsend's) Shearwater and Hawaiian (Dark-rumped) Petrel. Both species are susceptible to collisions with lit structures and power lines at low elevations. The FCC has failed to act to end the violations.

It is important for the FCC to note and correct the deficiencies in its current regulations pertaining to threatened and endangered species. Currently, applicants for tower registrations conduct reviews that fail to identify listed species vulnerable to tower collisions and fail to identify important habitats that may be adversely affected. Instead, applicants simply check with the U.S. Fish and Wildlife Service to identify any species that have been recorded at the particular tower sites in questions. This process is deficient for three reasons.

First, the vast majority of sites affected by antenna structures have not been adequately surveyed for listed or proposed threatened or endangered species, so even if they are inhabited by such listed species, records do not necessarily exist. Secondly, critical habitat for the vast majority of listed species has yet to be mapped, even though essential habitat features may have already been described in the literature and be present on the sites.

Third, although listed species may not permanently inhabit particular sites, they may, nonetheless, use such sites periodically for feeding, breeding, migration and dispersal, and be adversely affected by fatal collisions with towers. Indeed, as clearly established by the literature and the killing of endangered Red-cockaded Woodpeckers and the reported killing of an endangered Kirtland's Warbler, fatal collisions with certain listed species is a reasonably foreseeable adverse impact.

Because the information supplied by tower registration applicants is so incomplete, FCC must revise its current procedures to insure that all tower applicants:

- (1) conduct surveys for all possible listed and proposed species, including all mammals, birds, reptiles, amphibians, fish, invertebrates, and flowering and non-flowering plant species that may potentially inhabit the sites, use the sites to meet part of their life-cycle needs, or be adversely impacted by the proposed structures and their radio frequency emissions;
- (2) conduct literature reviews to determine if the location of the proposed structures may affect any suitable or potential habitat for listed or proposed species;
- (3) review bird kill data from nearby structures to determine if any listed or proposed bird species are likely to be adversely affected;
- (4) determine if structures conform with the U.S. FWS Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers of 9/14/2000;
- (5) compile any other information available from federal, state, and local government, universities, or organizations that addresses potential conflicts between the proposed structures and listed or proposed species for listing.

If these sources of information indicate that adverse effects to listed or proposed species are likely to occur, then FCC must initiate formal consultation with the U. S. FWS and obtain a biological opinion that sets forth reasonable and prudent measures for avoiding such effects. 50 C.F.R. 402.14.

XI. REGULATORY CHANGES REQUIRED AND SUPPORTED BY STUDIES AND RESEARCH.

Whether the FCC proceeds to complete an EIS or not, and whether it ever completes its NOI process, it should immediately revise its regulations and procedures to fulfill statutory mandates under NEPA, MBTA, and the ESA to protect migratory birds. The FCC NOI does nothing to absolve the FCC from its legal responsibilities or to resolve the current problem of existing and newly permitted towers killing migratory birds. The NOI process has delayed any FCC action to change the current regulatory system or to better conserve migratory bird resources for years, despite overwhelming documentation given to the FCC of significant avian mortality caused by communication towers and methods to prevent/minimize this mortality.

Under NEPA, MBTA, and the ESA, it is the FCC which authorizes approval of towers and thus has responsibility for enacting measures that protect avian species from deaths caused by these FCC approved towers. The FCC should use the best available science which is alluded to

in this letter, the attached Land Protection Partners Analysis, and in the FWS Tower Siting Guidelines. Conducting an Inquiry does not relieve the FCC of its duties to immediately act to prevent migratory bird deaths under the MBTA or to comply with NEPA and conduct an EIS and to comply with the ESA and consult with the FWS.

We also have repeatedly advised the FCC over the last five years to add migratory birds to the list of impacts for which Environmental Assessments are required under 47 C.F.R. 1.1307. This would mandate Environmental Assessments as a licensing or re-licensing requirement for construction of individual towers which may affect migratory birds. The regulations should further be changed so that the FCC, not the applicants, would prepare the Environmental Assessments in each case.

XII. FCC SHOULD ADOPT MEASURES TO PREVENT/MINIMIZE AVIAN MORTALITY.

The Avatar Report at page 3-57 dismisses our recommendations for mitigation/prevention by saying “no specific details were provided on how these specific recommendations were derived.”

We have submitted specific documentation previously and in our November 13, 2003 letter, and we provide further documentation in this letter and in the attached Land Protection Partners Analysis in support of specific elements of the U.S. FWS Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers. These Guidelines represent the best science currently available to prevent avian mortality at communication towers. The FWS Director noted that “We believe that widespread use of these guidelines will significantly reduce the loss of migratory birds at towers.” The FCC has chosen to ignore these guidelines and after several years of prodding, to simply post a reference to them on their web site.

Since the FCC NOI notes that the FCC is not expert in migratory birds and that the U.S. FWS is the lead Federal agency for managing and conserving migratory birds, the FCC should adopt these measures delineated in the Guidelines to prevent the deaths of millions of migratory birds and to comply with NEPA, MBTA, and the ESA. The FAA sets the standards for tower lighting and in an April 6, 2004 Memorandum recommended that medium intensity white strobe lights for nighttime conspicuity is to be considered the preferred system over red obstruction lighting systems to the maximum extent possible without compromising safety. See Item IV. above. Why does the FCC continue to ignore these recommendation by the other expert Federal agencies?

As noted above by the FWS Director, the Guidelines “were developed by Service personnel from research conducted in several eastern, midwestern, and southern states, and have been refined through Regional review. They are based on the best information available at this time, and are the most prudent and effective measures for avoiding bird strikes at towers. We believe that they will provide significant protection for migratory birds.” We believe and the Director believes that the measures in the Guidelines are supported by adequate and reliable

empirical and/or scientific evidence.” The attached scientific analysis by Land Protection Partners also documents the literature and research supporting use of the mitigation measures in the Guidelines and includes the most current literature and ongoing research.

Our submittals previously and herein, document that co-locating antenna, keeping towers below 200' and unlit, keeping towers as short as possible, using only white or red strobe lights when lights must be used, and keeping towers as monopoles (no guy wires), and off of migratory ridges, all where possible, would eliminate most avian mortality at communication towers.

The FCC has and continues to stonewall on this issue, having made no changes to its tower program despite the urging of the Director of the FWS, the Federal agency with expertise in birds, and many others. Further, the application of the Guidelines should not in any way hinder the provision of efficient and reliable communication services. Simply co-locating antennae, keeping towers under 200' to avoid lighting where possible, building monopole towers where possible, keeping lighting to the minimum required by the FAA, and using white or red strobe lights at no more than 20 pulses a minute cannot possibly inhibit the provision of efficient and reliable communication services. As long as the antennae is up and operating, the color or pulsing of aviation warning lights or whether the antennae is co-located cannot possibly inhibit communication services but could determine if millions of migratory birds will meet their deaths at towers.

In this letter and the attached Analysis, we have made specific recommendations based on the U.S. FWS Tower Siting Guidelines and will not repeat them here. We urge their immediate adoption by the FCC to avoid or at least minimize avian mortality, as required by Federal law.

Respectfully Submitted,

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